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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,359	12/04/2003	Steven S. Bordewick	AP.002US1	8234

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EXAMINER

LOPEZ, AMADEUS SEBASTIAN

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/729,359	Applicant(s) BORDEWICK, STEVEN S.	
	Examiner Amadeus S. Lopez	Art Unit 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/16/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 1 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/15/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The allowability of claims 1, 3-5, and 8 has been regrettably withdrawn due to the discovery of applicable prior art.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, two separate boxes, one being an inlet muffler box and the other being an outlet muffler box, must be shown or the feature(s) canceled from the claim(s). Also a blower box should also be shown in the drawings. No new matter should be entered. Currently what is shown is one single box with an inlet muffler and an outlet muffler.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1 and 8 are objected to because of the following informalities: The examiner does not know what exactly the applicant is claiming. From the claims, it is stated that there is an inlet muffler box and an outlet muffler box, when in fact from looking at the drawings, there is only one box with an inlet muffler and an outlet muffler. Please clarify as to whether the applicant is trying to claim one box with two mufflers, one at the inlet and another at the outlet, or is the applicant trying to claim 2 separate muffler boxes, with each one having a single perforated tube or muffler. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5274201 to Steele.

6. With regards to claim 1, what is taught and shown by Steele in Figs. 1-5 is a noise muffler for an air blower for providing continuous positive airway pressure to a patient comprising: an inlet muffler box (18) which receives a turbulent stream of air which is directed along an air pathway comprising a first perforated tube (inlet 18 connected to outlet via tubular elements 19; tubing within the entire system is described to be "air-pervious" which inherently means it would be perforated in some way to allow air to flow through apertures on the surface of the tubes as well as the main inlet and outlet ends, also from Fig. 2 it can be seen from the air flow arrows, that air can flow in various directions through the walls of the tube which means that it is perforated; Col. 1, lines 46-52), whereby the stream of air exits the tube through the perforations thereof (Col. 1, lines 52-58) and is directed around a first divider (first wall 19 that air flows around; Fig. 2 and 4) and a second divider (second wall 19 that air flows around in fig. 2 or 4) and a third divider (third wall 19 that air flows around in fig. 2 or 4), lengthening the

air pathway, whereby the stream of air is thereby transformed into an approximately laminar stream of air (inherent that approximately laminar stream would be formed since the structure of disclosed muffler box of Steele is the same as that of the applicant except that Steele's muffler box has more than three dividers; a blower box (upper portion of assembly surrounding fan or blower 11 and motor 10 in Fig. 1) comprising a fan (11); and an outlet muffler box (17) comprising a perforated tube (17; disclosed as being made of mesh which is inherently perforated; Col. 3, lines 43-48) for receiving the stream of air through the perforations thereof (Col. 1, lines 46-58), the stream of air having passed the third divider (19) and; connected to a hose leading to a patient (inherent that a tube or conduit from the outlet 17 is connected to a patient to deliver the air or gas from the blower or fan 11). What Steele does not teach is using a centrifugal fan to deliver air. After reviewing the specification, the examiner has concluded that the applicant does not establish criticality for using a centrifugal fan to deliver air through the muffler box. Therefore it would be an obvious matter of design choice to use a centrifugal fan or any other fan or blower that would be effective in delivering a continuous flow of positive pressured gas.

7. **With regards to claim 2**, what is taught by Steele is a blower assembly wherein the air pathway is lined with an anechoic material. Steele discloses that "preferably the housing is lined with an air pervious and sound absorbing material which may be, for example, panels of glass wool." Sound absorbing material is inherently anechoic.

8. **With regards to claims 3-5**, what is taught by Steele is a blower assembly with an air pathway that leads to a patient inherently via a tube or conduit of some sort.

What is not disclosed by Steele is that the cross sectional area of the blower assembly is generally reduced (claim 3), reduced to a size 20% to 50% smaller (claim 4), and reduced to a size 25%-35% smaller (claim 5) than that of the hose leading to the patient. After reviewing the specification, the examiner has concluded that the applicant never establishes any criticality for reducing the cross sectional area of the air pathway from that of the hose leading to the patient. Therefore it would have been an obvious matter of design choice to use any cross-sectional area for the air pathway that would be effective in further dampening the noise and turbulent flow of air that passes through the muffler box assembly from the blower to the patient.

9. **With regards to claim 6**, what is taught and shown by Steele in Figs. 1-4 is an inlet muffler box (18) which comprises a first perforated tube (inlet 18 connected to outlet via tubular elements 19; tubing within the entire system is described to be "air-pervious" which inherently means it would be perforated in some way to allow air to flow through apertures on the surface of the tubes as well as the main inlet and outlet ends, also from Fig. 2 it can be seen from the air flow arrows that air can flow in various directions through the walls of the tube which means that it is perforated; Col. 1, lines 46-52) having a sealed end distal to an inlet orifice (18) which receives a turbulent stream of air through the orifice; a first divider (first wall 19 that air passes around in fig. 2 or 4) placed along the length of the first perforated tube (tubing 19 that leads from inlet 18 is "air pervious" and therefore perforated) so as to direct the stream of air around the first divider (first wall 19 that passes around in Fig. 2 or 4) thereby lengthening the air pathway; a second divider (second wall 19 that air passes around in fig. 2 or 4) placed

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along the length of the first divider so as to direct the stream of air around the second divider, thereby lengthening the air pathway (fig. 2 or 4); a second perforated tube (tubing leading to outlet 17; Fig. 2) having a sealed end distal to an orifice; and a third divider (third wall 19 that air passes around in fig. 2 or 4) placed along the length of the second perforated tube so as to direct the stream of air around the third divider, and an orifice opening (18) to the blower box (upper portion of assembly surrounding motor 10 and fan 11).

10. **With regards to claim 7**, what is taught and shown by Steele in Fig. 1-4 is a blower assembly with an inlet muffler box (18) wherein it has two perforated tubes (tubing leading to inlet 18 and outlet 17) and a plurality of dividers (19). What is not disclosed is that the perforated tubes are of approximately equal length and each of the dividers is about 60% of the length of the perforated tubes. After reviewing the specification, the examiner has concluded that the applicant never establishes any criticality for utilizing two perforated tubes of approximately equal length and each of the dividers being about 60% of the length of the perforated tubes. Therefore it would have been an obvious matter of design choice to have the perforated tubes to be approximately equal in length and having each divider being about 60% of the length of the perforated tubes or any other configuration of lengths that would be effective in lengthening the air pathway and damping the sound of the air stream and transforming the turbulent air flow to laminar flow.

11. **With regards to claim 8**, what is taught and shown by Steele in Fig. 1-4 is a blower assembly for providing continuous positive airway pressure to a patient

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comprising: an inlet muffler box (18) which receives a turbulent stream of air which is directed into a first perforated tube with a sealed end (inlet 18 connected to outlet via tubular elements 19; tubing within the entire system is described to be "air-pervious" which inherently means it would be perforated in some way to allow air to flow through apertures on the surface of the tubes as well as the main inlet and outlet ends , also from Fig. 2 it can be seen from the air flow arrows that air can flow in various directions through the walls of the tube which means that it is perforated; Col. 1, lines 46-52), whereby the air enters the muffler box through the perforations in the first tube (Col. 1, lines 52-58), is directed along an air pathway by a first divider (first wall 19 that air passes around in fig. 2 or 4) placed along the tube, is diverted by a second divider (second wall 19 that air passes around in Fig. 2 or 4) placed on the wall opposite to the first perforated tube, is further diverted by a third divider (third wall 19 that air passes around in Fig. 2 or 4) placed along a second perforated tube with a sealed end (tubing leading to outlet 17), thereby transforming the turbulent stream of air into a laminar flowing stream of air which then passes through the perforations in the second tube into a blower box (upper portion of assembly surrounding motor 10 and fan 11); and a blower box comprising a fan and an outlet muffler box (17) connected to a hose leading to the patient (inherent that gas that passes through the muffler box would lead to a patient via a tube or conduit). What Steele does not teach is using a centrifugal fan to deliver air. After reviewing the specification, the examiner has concluded that the applicant does not establish criticality for using a centrifugal fan to deliver air through the muffler box. Therefore it would been an obvious matter of design choice to use a

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centrifugal fan or any other fan or blower that would be effective in delivering a continuous flow of positive pressured gas.

Conclusion


The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. US 6799657

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amadeus S. Lopez whose telephone number is (571) 272-7937. The examiner can normally be reached on Mon-Fri 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (571) 272-4791. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Amadeus S Lopez
Examiner
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